

WEST Search History

DATE: Wednesday, May 12, 2004

Hide? Set Name Query**Hit Count***DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR*

<input type="checkbox"/>	L26	l8 and bios	2
<input type="checkbox"/>	L25	((alter\$4 or chang\$4 or modif\$7) near3 POST near3 operation) and l7	5
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<input type="checkbox"/>	L1	(thermal adj (profile or characteristic))	9069

END OF SEARCH HISTORY

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L2: Entry 11 of 17

File: USPT

Aug 27, 1996

DOCUMENT-IDENTIFIER: US 5550750 A

TITLE: Method and system for integrating component analysis with multiple component placement

Detailed Description Text (8):

However, if a thermal placement length is not stored in the library, the system must perform the detailed thermal analysis. To do so, the system first acquires thermal characteristic data for each component from the user or a computer file (26). This data includes, but is not limited to, device geometry, device power, and thermal characteristics of component packaging. The data also includes thermal characteristics of the substrate to which the component will be mounted and thermal characteristics of the bonds used in the components. Finally, the data may include convection and radiation information as well as information regarding specific cooling techniques such as thermal vias or heat sinks. After acquiring this data, the system assembles the data in preparation for a mathematical analysis, such as a three dimensional finite element analysis (28).

First Hit Fwd Refs

Generate Collection

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L26: Entry 1 of 2

File: USPT

Feb 19, 2002

DOCUMENT-IDENTIFIER: US 6349269 B1

TITLE: Thermal management data prediction system

Detailed Description Text (4):

Bus interface controller 106 performs two primary functions. The first function that bus interface controller 106 performs is as a memory controller for accessing system memory 120 and non-volatile memory 122. System memory 120 is a dynamic random access memory (RAM) which includes one or more single, in-line memory modules (SIMMS) and stores programs and data for execution by system processor 102. Nonvolatile memory 122 includes, e.g., a read only memory (ROM) which stores microcode including the basic input output system (BIOS) 130 of computer system 100. Non-volatile memory 122 may include other types of non-volatile memory such as floppy disks, hard disk drivers, compact disc ROM (CDROM).

Detailed Description Text (5):

BIOS 130 is a microcode software interface between an operating system or application programs and the hardware of system 100. The operating system and application programs access BIOS 130 rather than directly manipulating I/O ports and control words of the specific hardware. BIOS 130 is accessed through an interface of software interrupts and contains a plurality of entry points corresponding to the different interrupts. In operation, BIOS 130 is loaded from non-volatile memory 122 to system memory 120 and is executed from system memory 120.

Detailed Description Text (8):

Processor 102 includes temperature sensor 170. Temperature sensor 170 determines a temperature value and writes this temperature value to a memory location. Temperature sensor 170 may be located anywhere within computer system 100. Non-volatile memory 122 also includes thermal management data prediction system 172. In operation, thermal management data prediction system 172 is executed by processor 102. More specifically, thermal management data prediction system 172 uses the temperature value as well as a time value to predict the temperature characteristics of computer system 100.

[First Hit](#) [Fwd Refs](#)

Generate Collection

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L24: Entry 2 of 5

File: USPT

Jan 30, 1996

DOCUMENT-IDENTIFIER: US 5488331 A

TITLE: Active bias for a pulsed power amplifier

Detailed Description Text (12):

Returning to FIG. 3, the problem of first-pulse bias compensation is solved by employing a thermal sensing device 33. The thermal device is in thermal communication with one or more of the amplifying devices A.sub.1, A.sub.2 . . . A.sub.i and sends a temperature output signal to the bias control circuit 16. When the amplifier 10 is initially turned on, or has been gated off for a significant period of time so that the associated amplifying device A.sub.i has cooled, the thermal sensing device 33 will report this to the bias control circuit 16. The thermal characteristics of each of the amplifying devices can be quite different and can change as the device ages, but this information is stored in memory in the bias control circuit and is updated during operation if required. The bias correction for each thermal increment (e.g., for about each one degree celsius) is stored in non-volatile memory. When the amplifier has been gated off for a significant period (e.g. one second or longer) the stored values based on temperature are used to generate the respective bias levels. Then once amplifier operation is underway, the active bias feedback loop takes over to maintain the amplifier bias at the desired level.

First Hit Fwd Refs

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L21: Entry 2 of 7

File: USPT

Apr 29, 2003

US-PAT-NO: 6557012

DOCUMENT-IDENTIFIER: US 6557012 B1

TITLE: System and method of refreshing and posting data between versions of a database table

DATE-ISSUED: April 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Arun; Gopalan	Nashua	NH		
Vasudevan; Ramesh	Burlington	MA		
Agarwal; Sanjay	Nashua	NH		

US-CL-CURRENT: 707/203; 707/3, 715/511

ABSTRACT:

A version control system is described for use in connection with a database management system to facilitate versioning of a database table, the system including a database table and a version control module. The database table comprises a plurality of records, each record including at least one data field for storing user data and at least some of the records including a version control field including version control information. The version control module is configured to, in response to a user query related to the database table and related to a version, generate an augmented query for processing by the database management system, the augmented query relating to the user query and the version control information. The version control module facilitates association of versions of the database with respective ones of a hierarchy of states and allows conflicts therebetween to be resolved, data to be posted from child states to respective parent states in the hierarchy, and referential constraints between tables to be preserved.

18 Claims, 19 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 19

WEST Search History

Hide Items

Restore

Clear

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DATE: Wednesday, May 05, 2004

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END OF SEARCH HISTORY

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Generate Collection

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L31: Entry 1 of 2

File: USPT

Jun 3, 2003

DOCUMENT-IDENTIFIER: US 6574740 B1

TITLE: Dynamic power consumption control for a computer or other electronic apparatus

Detailed Description Text (21):

Further, connected to the power controller 47 are DC/DC card 57, together with the I2C bus 53 for detecting current values of the CPU 13, LCD 23 and other system loads. In the reference table 250, thermal levels are classified into five levels "1" to "5", whereby various thermal operations (fan operation, throttling 50%, throttling 25%, suspend, and power off) are defined under these thermal levels respectively. The thermal levels 1 to 4 (ranging from the fan operation to the suspend) correspond to the operation modes 1 to 4 of the CPU 13, described above with reference to FIGS. 2 to 4, respectively. The fan operation at the thermal level 1 is used for air cooling inside of the computer, and the CPU 13 runs in the normal state at the thermal level 1 or below. In the reference table 250, a set of a temperature (marked "enable") for activating an associated thermal level and another temperature (marked "disable") for stopping the associated thermal level is defined for each of the mounting locations of the thermal sensors respectively, whereby a thermal level may be automatically changed in accordance with a temperature rise detected by a thermal sensor for preventing a temperature from rising further. Moreover, in the reference table 250, predicted maximum power consumption (Pmax) for use in practicing this invention and its reference power values are defined. If the Pmax is increasing, a reference power value as defined in the column labeled "Enable" is referred to for changing a thermal level, i.e., an operation mode of the CPU 13. For example, the CPU 13 runs in the normal operation mode until 50 W are reached at, whereupon this operation mode is changed to the throttling 50%, and then to the throttling 25% at 52 W, finally to the suspend at 55 W. Conversely, if the Pmax is decreasing, a reference power value as defined in the column labeled "Disable" for each thermal operation is referred to for changing the operation modes of the CPU 13.

Current US Cross Reference Classification (1):713/320

First Hit Fwd Refs

Generate Collection

Print

L20: Entry 1 of 4

File: USPT

Nov 11, 1997

DOCUMENT-IDENTIFIER: US 5687077 A

TITLE: Method and apparatus for adaptive control

Detailed Description Text (53):

The controller of the invention was installed to control the cooler level and four additional controllers according to the invention were installed to automatically provide a trim signal to stabilize the temperatures in the four feeders. The invention reduced the cooler feeder temperature deviations from 200 degrees C. to about 30 degrees C. Stabilized cooler conditions have improved the product quality and enabled the kiln to produce lime with a more consistent slaking rate. The processor used for this application of the invention was a Compaq 386 using the OS/2 operating system and operating at 20 Mhz, with 6MB RAM. The scan period was 2 seconds. The I/O device was an Allen-Bradley PLC 5/25. Eight primary filters and no stochastic filters were used. The update period was every 120 seconds.

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Generate Collection

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L20: Entry 2 of 4

File: USPT

Jul 2, 1996

DOCUMENT-IDENTIFIER: US 5532991 A

TITLE: Recording and/or reproducing apparatus and method of controlling same

Detailed Description Text (63):

First, the system controller 11 reads temperature information from the temperature detector 21. The system controller 11 updates and retains the temperature information each time it automatically adjusts the servo control gains. Therefore, when the system controller 11 reads temperature information from the temperature detector 21, the system controller 11 retains the temperature information which has been obtained in the previous process of automatically adjusting the servo control gains.

First Hit Fwd Refs

Generate Collection

Print

L9: Entry 2 of 4

File: USPT

Sep 1, 1987

DOCUMENT-IDENTIFIER: US 4690569 A

TITLE: Thermal profile system

Detailed Description Text (30):

A longer program delay now occurs follwed by several device commands to cool down the test workpiece. The speed of the fan 56 is set to its maximum, the heating element 44 and elevator platform 24 are lowered and the clock is reset to zero. The status of this short cool down period is monitored by reading the P-TEMP, displaying the TEMP and TIME values and repeating those steps until the detected P-TEMP is 20.degree. C. from the last reading. The test is performed to determine when the test workpiece can be removed. An audible warning is sounded announcing the end of the Program Mode. The system is ready for implementing the Thermal Profile Routine.

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L5: Entry 1 of 6

File: USPT

Sep 16, 2003

DOCUMENT-IDENTIFIER: US 6621411 B2

TITLE: Compartment sensing system

Detailed Description Text (165):

Alternatively, instead of providing a fixed thermal differential sensitivity for the vehicle compartment occupancy detection system, a dynamic thermal differential sensitivity can be provided for the vehicle compartment occupancy detection system. This includes, for example, an algorithmic vehicle occupancy detection system false trigger protection system or a mathematical vehicle occupancy detection system false trigger protection system or a computational vehicle occupancy detection system false trigger protection system or an analog and/or digital electronic vehicle occupancy detection system false trigger protection system. These dynamically change the thermal differential sensitivity for the vehicle compartment occupancy detection system, and other characteristics of the controller, in response to actual inputs to the controller in response to the occurrence of a given event in a particular vehicle compartment. Thus, for example, should a temperature input to the controller indicate that the ambient temperature in the compartment is close to or equal to body temperature, then a higher thermal sensitivity can be selected by the controller for example, a thermal differential sensitivity of about 1 degree Fahrenheit may be chosen, preferably in conjunction with another false trigger reduction means such as utilization of a more stringent "viable" signal verification routine that requires a higher number of event detection signals in a pre-determined time period or a longer duration can be chosen before an output to release a latch is given to raise a trunk lid.

Detailed Description Text (170):

Where camera systems are used, it is desirable to use an in-trunk compartment illumination means to light-up the closed compartment for viewing by the camera. For example, a trunk light described as element 139 in FIGS. 1 and 3 above, can illuminate thereby allowing the camera to capture an image of the trunk interior. Since such interior lights typically consume significant electrical current, it is preferred that this illumination be a momentary illumination for a brief period for example, between 1 and 5 seconds or shorter, depending on the exposure needs of the camera and the rate of illumination of the light source so as to conserve battery power. It is preferable to use non-incandescent, low-power, solid-state light sources such as light emitting diodes such as are described in U.S. patent application Ser. No. 09/449,121, filed Nov. 24, 1999, titled "Rearview Mirror Assembly With Utility Functions" by Hutzet et al. of Donnelly Corporation (Attorney Docket: P-778), the entire disclosure of which is hereby incorporated by reference herein. As described above in FIG. 2 above, The PTRS module, which typically is a very low current device, can be constantly monitoring the trunk space while the vehicle is parked. If the PTRS module suspects the presence of a trapped occupant, then optionally an additional trunk space monitoring device (such as a microphone or a camera or the like) is activated by the PTRS module to perform a confirmation of occupant presence.

Detailed Description Text (174):

Providing both an active and a passive occupant escape system in the same trunk further enhances compartment safety. Also, not all vehicle trunks are provided with a powered (typically by an electrically actuated solenoid or the like) trunk

release latch, and in such vehicles, provision of an active trunk release such as by pulling a lever, handle or other release mechanism located in the trunk space is necessary to allow trunk escape. Also, active trunk release systems such as the manually-operated trunk release handle disclosed in the above-referenced patent application, preferably have lighted handles or the like that illuminates for a period after the trunk lid is initially closed following a trunk closure (but ceases to illuminate after a time-out period in order to conserve battery power). This lighted handle is re-illuminated should it be touched or pulled in order to aid and encourage a child or similar trapped occupant to pull the handle to release the trunk lid and escape. When such a lighted safety handle is used in conjunction with a vehicle compartment occupancy detection system, the PTRS module, upon detection of person movement within the trunk space, can provide an output as discussed herein that illuminates the user-operable manual trunk lid release handle or other device provided in the trunk compartment. When the manual trunk handle light is not inclusive of light sources for self-illumination, then the output may illuminate a trunk space light provided in the trunk space compartment, which is preferably, a special purpose light source such as a single or a cluster of high intensity, directed, low-current, non-incandescent compact light emitting diodes or a electroluminescent strip which are suitably mounted as part of PTRS module.

[First Hit](#) [Fwd Refs](#)

Generate Collection

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L8: Entry 1 of 2

File: USPT

Jan 27, 1998

DOCUMENT-IDENTIFIER: US 5711606 A

TITLE: Diagnostic system for a cooking appliance

CLAIMS:

9. The diagnostic system of claim 1 further comprising

means for updating said known thermal profiles based on the past operating conditions of the cooking appliance.

23. The improvement of claim 17 further comprising

means for updating said known thermal profiles based on the past operating conditions of the cooking appliance.

32. The diagnostic system of claim 24 further comprising the step of

updating said known thermal profiles based on the past operating conditions of the apparatus.

First Hit Fwd Refs

Generate Collection

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L9: Entry 1 of 4

File: USPT

Apr 6, 2004

DOCUMENT-IDENTIFIER: US 6718164 B1

TITLE: Dynamic method and apparatus for controlling device temperature during continuous transmissions

Brief Summary Text (5):

Controlling device temperature of a heat-sensitive module of a communication device typically relies upon a priori information about the thermal characteristics of the heat-sensitive module, commonly referred to as the thermal profile of the heat-sensitive module, that is stored in the communication device. U.S. Pat. No. 5,519,886, issued May 21, 1996 to Gilbert et al., for instance, discloses the use of a priori thermal information to control a heat-sensitive module. This approach, however, presents various problems that the present invention seeks to overcome. First, the thermal characteristics of the heat-sensitive module must be profiled and stored in permanent storage before the device can operate. Second, because the thermal profile of the module is static and unchanging, it does not allow for the natural aging of device modules or components over time. Third, the thermal profile cannot include time periods of previous transmissions of the device, defined by start and stop times, and this information must be updated during operation of the communication device. Fourth, the stored profile is simply an approximation of the actual thermal profile during operation and thus the accuracy of the thermal profile is directly proportional to the size of the storage space dedicated to the profile. Moreover, the stored thermal profile contains thermal characteristics only for a particular heat-sensitive module of the communication device and thus the thermal profile is not readily applicable for other modules. Typical RF PAs for portable two-way wireless radio communication devices, for instance, come in a wide variety of designs and power ratings, from 2 Watts to 22 Watts and higher, for instance, and so the thermal profile for an RF PA rated at 22 Watts of a certain design and manufacturer would not necessarily be applicable to an RF PA rated at 2 Watts of another design and manufacturer. Fifth, because it is not practical to store an unlimited number of thermal profiles that would be representative of each of the possible operating conditions to which the module might be subjected, the stored data points of the profile are used to derive various points along the thermal profile that correspond to the current operation conditions of the module. These thermal profile calculations are processor-intensive operations that require interpolation and approximation techniques that are inherently prone to round-off error.

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L34: Entry 1 of 1

File: USPT

Apr 6, 2004

DOCUMENT-IDENTIFIER: US 6718164 B1

TITLE: Dynamic method and apparatus for controlling device temperature during continuous transmissions

Abstract Text (1):

A communication device (100, 200) capable of transmitting information provides the means for regulating the temperature (116) of one or more heat-sensitive modules or components (160) of the communication device through the adaptive and dynamic control of the flow of transmissions by the communication device, thereby eliminating the need for stored thermal profiles of heat-sensitive modules of the communication device. In addition to the heat-sensitive module(s), the communication device has a multi-logic controller block (110) and a transmission flow control block (140). The multi-logic controller block (110) receives the temperature of the heat-sensitive module (116) and a first control clock (112) and utilizes multi-value logic to generate a flow control signal having hysteresis (126). The flow control block (140) is coupled to the multi-logic controller block (110) and the heat-sensitive module(s) (160) and operates to generate a transmission control signal adapted to control transmission of information by the communication device in accordance with the flow control signal (126) and a second control clock (142) provided to the flow control block (140).

Current US Cross Reference Classification (3):219/667Current US Cross Reference Classification (6):455/127.1

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L31: Entry 2 of 2

File: USPT

Jul 23, 1996

DOCUMENT-IDENTIFIER: US 5539381 A

TITLE: Fixed threshold and rate of rise heat detector with dynamic thermal reference

Abstract Text (1):

A heat detector uses a single comparator operating in conjunction with a dynamically changing thermal reference that ensures quick response to rapid rates of thermal change and a fixed threshold that indicates an ambient temperature exceeds a threshold temperature. The inputs of the comparator receive different ones of the output signals of two thermal sensors. One thermal sensor responds nearly instantaneously to changes in ambient thermal conditions. The other thermal sensor is mounted on a printed circuit board operating as a heat sink and responds more slowly to changes in ambient thermal conditions. The difference between the thermal sensor output signals is zero at a lower ambient temperature when the rate of thermal change exceeds a preset amount and at a higher ambient temperature when the rate of thermal change is relatively slow. Thus, the comparator output indicates an alarm condition upon detection of a rapid change in ambient thermal condition or a thermal condition exceeding a threshold, irrespective of the rate of change.

Brief Summary Text (2):

This invention relates to heat detectors and, in particular, to an economical fixed threshold and rate of rise heat detector that uses a dynamically changing thermal reference to indicate an ambient temperature exceeding a threshold and to ensure quick response to rapid rates of thermal change.

Brief Summary Text (8):

The heat detector uses a single comparator operating in conjunction with a dynamically changing thermal reference that ensures quick response to thermal changes and a fixed threshold that indicates an ambient temperature exceeds a threshold temperature. The inputs of the comparator receive different ones of the output signals of two thermal sensors. One thermal sensor is a bipolar transistor whose body is mounted away from the electronic printed circuit board ("PCB") to respond nearly instantaneously to changes in ambient thermal conditions. The other thermal sensor is a bipolar transistor mounted on the PCB, which functions as a heat sink, to respond more slowly to changes in ambient thermal conditions. The differential temperature response rate of rise between thermal sensors allows the comparator to indicate an alarm condition in two instances when the thermal sensor output signals cross over, i.e., the difference between them is zero.

Current US Original Classification (1):340/584

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L32: Entry 2 of 4

File: USPT

Jan 1, 2002

DOCUMENT-IDENTIFIER: US 6336080 B1

TITLE: Thermal management of computers

Brief Summary Text (4):

The thermal profile of a computer depends on its electrical and mechanical setup. The actual location of a hot spot will change as the configuration of the computer changes. For example, a computer can run hotter in a section depending upon whether AC or battery power is used as the power source.

Brief Summary Text (13):

Advantages of the thermal management system include the ability to use multiple cooling options and to adjust the order of implementing the cooling options depending upon the operating condition of the computer. For example, since the fan itself requires a significant amount of power, it can be advantageous to slow down the CPU before activating the fan while on battery power, but request full CPU power with the fan activated while under AC power. Additionally, the system accurately monitors the thermal profile of the computer enabling the advantageous implementation of cooling options even when the "worst case" location in the computer is within acceptable temperature limits.

Detailed Description Text (7):

2. Whether the unit is docked to a docking station. There may be some physical restriction by the docking base that affects the cooling of the system and therefore the thermal profile inside the unit.

Detailed Description Text (8):

3. Whether the display screen is closed. Closing the lid affects the thermal profile, for example, by restricting airflow inside the unit.

Detailed Description Text (9):

4. Whether any option cards (e.g., PCMCIA or internal modem, etc.) are installed. Option cards affect the thermal profile by impeding airflow. Option cards are generally detectable through data buses leading to the central processor.

Detailed Description Text (44):

The parameters (output results) in the output response tables 99 are determined experimentally and/or empirically. Since the conditions of indirect inputs 20 affect the thermal profile of the computer, a thermistor located at a "worst case" position may give a reading within acceptable limits while components in other areas of the computer are operating at temperatures outside their acceptable limits. For example, with the thermistor located at CPU 12, if the computer lid is shut and an internal battery is fast charging, the hottest location in the computer is likely to be at the power supply.

Detailed Description Text (45):

Since the actual "worst case" location may not be the location of the thermistor, the actual "worst case" location is determined experimentally. While recording temperatures at the locations of heat sensitive components, the states of indirect inputs 20 are manipulated and the temperature as read from thermistor 16 is noted. Under each condition of indirect inputs 20, the optimal cooling parameters of

cooling options 22 are determined based on the temperature measurements. For example, with the computer lid closed and a battery fast charging, the thermistor reading may be within its acceptable limit but the temperature of the power supply is beyond its acceptable limit. Depending upon the actual reading of the thermistor, the optimal cooling parameters for this condition are to turn the fan full on and stop the battery charging. During use, given the status of indirect inputs 20 and the reading of thermistor 16, the thermal profile of the computer is effectively known and optimal cooling may be implemented.

Current US Cross Reference Classification (1):

713/300

[First Hit](#) [Fwd Refs](#)

Generate Collection

Print

L32: Entry 3 of 4

File: USPT

Dec 26, 2000

DOCUMENT-IDENTIFIER: US 6167525 A

**** See image for Certificate of Correction ****

TITLE: Method and system for analysis of electric power transmission link status

Brief Summary Text (41):

Preferably, said sensor values include a longitudinal thermal profile along the segment, measured with a predetermined longitudinal resolution.

Detailed Description Text (151):

In particular, FIG. 4 shows, for example, a segment of a power transmission link, consisting in a cable C, with the associated temperature sensors S1 to S4, which provide the relevant temperature values T1 to T4 reported in a thermal profile P. In the case of local sensor the respective location I1 to I4 is known by design. In the case the temperature is detected by the optical time domain reflectometry OTDR (i.e. distributed sensor) the complete thermal profile P along the cable segment is known with the resolution of the used instrument.

Current US Cross Reference Classification (5):713/300

CLAIMS:

11. Method according to claim 1, wherein said sensor values at the first time and said sensor values at the second time include a longitudinal thermal profile along the segment, measured with a predetermined longitudinal resolution.